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2 **AMENDMENTS TO THE CLAIMS**

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4 1. (Currently Amended) A method for testing at least one software
5 application, the method comprising:

6 injecting a dynamic link library (DLL) into an executable code of the
7 software application being tested;

8 installing at least one hook function into an application programming
9 interface (API) of an operating system, the installing performed by the DLL, the
10 at least one hook function configured to monitor operating system messages
11 communicated with the software application during execution of the software
12 application being tested;

13 retrieving information descriptive of a state of operation of the software
14 application being tested and at least one graphics element rendered during
15 execution of the software application being tested, wherein the information
16 identifies an executable feature associated with the at least one graphics element,
17 and wherein at least some of the retrieved information descriptive of the state of
18 operation is based on messages monitored by way of the at least one hook
19 function;

20 storing information related to an association between the executable
21 feature and the at least one graphics element and the state of operation of the
22 software application in a map data structure containing information related to at
23 least one graphics element for testing, the association and information being
24 stored in the map data structure during execution of the software application
25 being tested;

1 automatically selecting an executable feature from the map data structure
2 based on the association stored in the map data structure;

3 automatically executing the selected executable feature associated with the
4 graphics element; and

5 dynamically updating the information related to the state of operation of the
6 software application and the association in the map data structure upon execution
7 of the executable feature.

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9 13. (Currently Amended) A system for generating a map,
10 comprising:

11 a capture agent for retrieving information descriptive of a state of
12 operation of a software application being tested and a plurality of graphics
13 elements rendered during execution of the software application, the information
14 including an executable feature associated with each graphics element, the
15 capture agent including a dynamic link library (DLL) configured to be injected
16 into an executable code of the software application being test, the DLL further
17 configured to install at least one hook function into an application programming
18 interface (API) of an operating system, wherein the at least one hook function is
19 configured to monitor messages communicated between the operating system
20 and the software application during execution of the software application being
21 tested;

22 an application driver for storing information in a map data structure
23 related to an association between each executable feature and corresponding
24 graphics element and a state of operation of the software application during

1 execution of the software application being tested, wherein the map data
2 structure contains information related to at least one graphics element for testing;

3 ~~an indicator for tracking a dynamic updating of the information~~ an
4 application driver for automatically selecting one of the executable features
5 stored in the map data structure based on the information stored in the map data
6 structure;

7 a command agent for automatically executing the selected executable
8 feature; and

9 an indicator for tracking a dynamic updating of the information related to
10 the association and the state of operation of the software application in the map
11 data structure upon the automatic execution of the selected executable feature.

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